

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 2144.000800/RFE			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed name _____	Application Number 10/582,280	Filed June 9, 2006			
	First Named Inventor Johannes Meerdink				
	Art Unit 1625	Examiner Raymond K. Covington			
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top;"><p><input type="checkbox"/> applicant/inventor.</p><p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p><p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>42,508</u></p><p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p></td><td style="width: 50%; vertical-align: top; border-left: 1px solid black; padding-left: 10px;"><p><u>/Raymund F. Eich/</u> Signature Raymund F. Eich, Ph.D. Typed or printed name <u>(713) 934-4065</u> Telephone number <u>February 24, 2010</u> Date</p></td></tr></table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>				<p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>42,508</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p>	<p><u>/Raymund F. Eich/</u> Signature Raymund F. Eich, Ph.D. Typed or printed name <u>(713) 934-4065</u> Telephone number <u>February 24, 2010</u> Date</p>
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<input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.					

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

JOHANNES MEERDINK
NILS DAN ANDERS SÖDERGARD

Serial No.: 10/582,280

Filed: June 9, 2006

For: PURIFICATION PROCESS FOR LACTIDE

Confirmation No.: 2928

Group Art Unit: 1625

Examiner: Raymond K. Covington

Attorney Docket: 2144.000800/RFE
(2007-580-US-01)

CUSTOMER NO. 23720

REMARKS CONCERNING PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants submit the following remarks concerning the Pre-Appeal Brief Request for Review filed concurrently herewith. The following remarks show that there are clear errors in the Examiner's rejections.

If any fee under 37 C.F.R. §§ 1.16 to 1.21 is required, the Director is authorized to deduct it from Williams, Morgan & Amerson, P.C. Deposit Account No. 50-0786/2144.000800RE.

The Examiner's statements in the Final Office Action mailed October 28, 2009, and in the Advisory Action dated January 29, 2010, regarding the alleged obviousness of claims 1-21 over O'Brien, US 5,521,278 ("O'Brien") and Drysdale, US 5,236,560 ("Drysdale") include numerous clear errors.

For a first clear error, the Examiner has distilled the invention down to a "gist" or "thrust," instead of considering the invention "as a whole," as required under relevant precedent (*W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); *Bausch & Lomb v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 447-49, 230 USPQ 416, 419-20 (Fed. Cir. 1986), *cert. denied*, 484 U.S. 823 (1987); *Jones v. Hardy*, 727 F.2d 1524, 1530, 220 USPQ 1021, 1026 (Fed. Cir. 1984); *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir.), *cert. denied*, 481 U.S. 1052 (1987); MPEP 2141.02). Specifically, he ignored the recitation, in step (a) of claim 1, "said column being mounted onto the reactor such that components from the vapour product stream liquefying within the column *are allowed to flow back into the reactor*" (emphasis added).

The Examiner's contention "recycling reaction components back to a reactor is an obvious expedient well-known to a person of ordinary skill in the chemical arts" fails to teach or suggest the recitation quoted above.

To establish a *prima facie* case of obviousness, the prior art reference(s) must teach or suggest all the claim limitations. MPEP 706.02(j); *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). These precedents still stand in view of *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). To quote the Supreme Court, "[t]he combination of *familiar elements* according to known methods is likely to be obvious when it does no more than yield predictable results." 82 USPQ2d at 1395, emphasis added. The *KSR* decision thus fails to stand for the proposition that elements not taught or suggested by a reference can establish obviousness. The prior art must disclose each and every element of the claimed invention. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

The art fails to disclose the recitation quoted above. O'Brien's teaches recycling at col. 12, lines 26 to col. 13, line 28. O'Brien teaches recycling via condensation, distillation, *and* hydrolysis or dehydration steps. O'Brien fails to teach or suggest recycling without any one or more of those steps, let alone recycling by *allowing* liquefying components from a vapor product stream *to flow back into the reactor*. O'Brien's recycling requires, after condensation, *both* distillation *and* either hydrolysis or dehydration. The person of ordinary skill in the art would understand O'Brien's post-condensation recycling steps could only force liquefied materials back to the reactor, and would not allow them to flow.

Likewise, Drysdale does not teach or suggest recycling by *allowing* liquefying components from a vapor product stream *to flow back into the reactor*. Instead, Drysdale teaches feeding a vapor stream from a reactor to a partial condenser, feeding the resulting condensate to a distillation column 1, and removing a lactide-rich fraction from the lower part of the column via line 4. Drysdale, col. 4, line 45 to col. 6, line 15; and Figure 1. The person of ordinary skill in the art would understand Drysdale's post-condensation distillation and removal could only force a lactide-rich fraction back to the reactor, and would not allow it to flow.

Thus, neither O'Brien nor Drysdale, alone or in any combination, teach or suggest allowing a liquefying vapor product stream to flow back into a reactor.

As a result, the Examiner's distilling the claimed invention to a gist or thrust represents a clear error.

As a second clear error, the Examiner argued at pp. 2-3 of the Detailed Action that O'Brien and Drysdale teach functional equivalents to the rectification column mounted on the depolymerisation reactor of the present invention, *e.g.*, O'Brien at col. 2, step E. The Examiner's argument fails to render the claims unpatentable for at least one or more reasons set forth below.

First, whether or not a teaching of the prior art is a "functional equivalent" of an element of a claim is not determinative of patentability under 35 U.S.C. § 103(a). To find obviousness under the statute and relevant case law, the person of ordinary skill in the art must have *an apparent reason* to combine the alleged "functional equivalent" with other known options or elements, along with *a reasonable expectation of success*. The Examiner's use of the term "functional equivalent," in the absence of the other showings required under *KSR*, merely begs the question and fails to establish a *prima facie* case of obviousness.

Second, the Examiner's alleged "functional equivalents" are nothing of the sort. For example, he argues column 2, step E, of O'Brien, which teaches condensation of a vaporous reaction mixture removed in step D from a cracking zone, is equivalent to the rectification column being mounted in relation to the depolymerization reactor (noting that the term "condensation" is equivalent to the term "liquefaction"). It is clear from O'Brien's Figures 1A-1B and the accompanying discussion at col. 11, line 27 to col. 13, line 28 that O'Brien's step E refers to activities performed in the condensor 1000 and the vacuum distillation column 1400 of Figure 1B. These activities occur far downstream of the cracking unit 900 of Figure 1A. This certainly cannot be considered equivalent to the liquefaction that takes place in a rectification column according to the present claims.

The Examiner further argues that column 3, step C of O'Brien corresponds to step (c) of present claim 1. However, as discussed by Applicants in their paper dated December 22, 2009, Step E of O'Brien's first aspect (col. 2, lines 25-67) and step C of O'Brien's second aspect (col. 3, lines 1-30) *teach the same thing*. The Examiner argued one teaching of O'Brien--that of condensing a vaporous reaction mixture and fractionating the resulting condensate--is the

equivalent of two different steps of the present invention (*e.g.*, steps (a) and (c) of claim 1). This is clearly improper, and the rejection should be withdrawn for at least this reason alone.

Drysdale teaches a distillation column for the downstream purification of the lactide, and is equivalent to O'Brien's feature 1400. The discussion presented above about step E of O'Brien's first aspect thus also applies to Drysdale.

Thus, the Examiner's "functional equivalent" argument represents a clear error.

In conclusion, Appellants assert that in light of the amendments and arguments provided throughout the prosecution of the present application, all claims of the present application are now allowable and, therefore, request that a Notice of Allowance be issued. Reconsideration of the present application is therefore requested and the Examiner's rejections should be reversed.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON, P.C.
CUSTOMER NO. 23720

February 24, 2010

/Raymund F. Eich/
Raymund F. Eich, Ph.D.
Reg. No. 42,508

10333 Richmond, Suite 1100
Houston, Texas 77042
(713) 934-4065
(713) 934-7011 (fax)

AGENT FOR APPELLANTS